



Pharmaceutical Industry Association of Puerto Rico

Industry Perspective and Initiatives Solid Waste Management in Puerto Rico

EPA/SWMA Solid Waste Management
Conference

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Rosa Parés

Chairperson

Safety, Health and Environmental Committee

- ***PIA represents 18 corporations organized in 34 manufacturing operations with 17 commercial entities and 6 corporate offices***
 - ***Research-based multinational pharmaceutical and biotechnology companies***
- ***Pharmaceutical Industry represents over ~20% of the work force generated in the manufacturing sector***
- ***Major market for small business and professional organizations***
- ***Pharmaceutical Industry Represents ~25% Island Gross Domestic Product***

PIA's Mission and Challenge



- ***To strengthen the presence of the pharmaceutical and biotechnology industry in Puerto Rico***
- ***Challenge:***
 - ✓ ***Competitors offer significant advantages in infrastructure, permitting, utilities and facilities***
 - ***Options for services such as solid waste management are readily available and cost-competitive***
 - ✓ ***Infrastructure is scrutinized when evaluation of product placement is conducted***
 - ***Puerto Rico's Solid Waste Management infrastructure needs more aggressive development with scheduled closing of municipal solid waste landfills***
 - ***New technologies have yet to be fully implemented for management of municipal and industrial wastes***

Industry Environmental Policy



■ ***Corporate responsibility***

- ✓ ***Pharmaceutical companies have Environmental Policies in place to reduce or eliminate to the extent possible facility Environmental Footprint***

■ ***Stringent waste management and disposal policies in place at the Corporate Level for typical pharmaceutical companies***

- ✓ ***Requires facilities destine wastes to responsible waste management facilities***
 - ***Limits use of existing facilities to those approved via Internal Audits ensuring protection of the Environment***
 - ***Limit liability associated with mismanagement of wastes by third parties***

- Robust recycling programs
 - ✓ Industries have sought and implemented opportunities to recycle an ample range of solid wastes that would otherwise destined to local landfills, such as:
 - Steel and plastic drums, glass, industrial scrap metal, wooden pallets, vegetation, cardboard, paper and other packaging components
- Solvent Recovery, Recycling and Reuse
 - ✓ Reuse and recovery of solvents within production processes
 - ✓ Recycling of solvents that would otherwise be wastes for other beneficial reuse
 - ✓ Reuse of qualifying solvents as Comparable Fuels

Local Needs

- ***Identification, Development and Implementation of alternate waste management and recycling technologies (such as solvent recovery and waste-to-energy)***
 - ✓ ***Involve Academia to educate local talent pool in these technologies***
- ***Aggressive infrastructure development to ensure adequate waste management capabilities in the near future***
 - ✓ ***Provide incentives for diverse waste management technologies***
- ***Public education on efficient and environmentally responsible technologies***
 - ✓ ***Promote and reward recycling at all levels (public and private)***

Opportunities/Path Forward



- *Develop task force involving government agencies and private sector to share practices, identify needs and seek competitive alternatives to strengthen Puerto Rico's infrastructure and ensure compliance with local and federal regulations*